

Amendment to the Claims

1 – 27 (Canceled).

28 (New). An optical network, comprising:

a plurality of connected devices, each of said plurality of devices operable to perform at least one of adding wavelengths within the network, dropping wavelengths within the network, regenerating wavelengths within the network, and providing for the passage of wavelengths therethrough;

a first of said plurality of connected devices operable to insert a wavelength within the network and send it to a second of said plurality of connected devices, and said first of said plurality of connected devices is further operable to send information related to the inserted wavelength to the second of said plurality of connected devices;

said information related to the inserted wavelength including data identifying the inserted wavelength and the identification of the first of said plurality of connected devices; and

said second of said plurality of connected devices operable to insert a wavelength within the network, and further operable to make a determination if the inserted wavelength by the second of said plurality of connected devices is equal to the wavelength inserted into the network by said first of said plurality of connected devices.

29 (New). The optical network as recited in claim 28, wherein said second of said plurality of connected devices further operable to make a determination if a connection with said first of said plurality of connected devices is a cross-connection.

30 (New). The optical network as recited in claim 29, wherein said second of said plurality of connected devices further operable to provide for the passage of the wavelength received from said first of said plurality of connected devices to a third of said plurality of connected devices.

31 (New). The optical network as recited in claim 30, wherein said second of said plurality of connected devices is further operable to provide for the passage of said information related to the inserted wavelength of the first of said plurality of connected devices to said third of said plurality of connected devices.